MOTION FILED

JUN 18 1975

IN THE

Supreme Court of the United States

No. 74-1518

THE TELEX CORPORATION and TELEX COMPUTER PRODUCTS, INC.

Petitioners,

vs.

INTERNATIONAL BUSINESS MACHINES CORPORATION,

Respondent.

MOTION FOR LEAVE TO FILE AS AMICUS CURIAE AND BRIEF AMICUS CURIAE OF COMPUTER INDUSTRY ASSOCIATION IN SUPPORT OF PETITION FOR CERTIORARI

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PRESS OF BYRON S. ADAMS PRINTING, INC., WASHINGTON, D. C.

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Supreme Court of the United States

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INTERNATIONAL BUSINESS MACHINES CORPORATION,

Respondent.

MOTION FOR LEAVE TO FILE AS AMICUS CURIAE

The Computer Industry Association respectfully moves that it be permitted to file a brief Amicus Curiae concerning the grant of a writ of certiorari to the United States Court of Appeals for the Tenth Circuit in *The Telex Corporation and Telex Computer Products, Inc.* v. *International Business Machines Corporation,* Nos. 73-1874 through 73-1878, 73-1961 and 73-1962.

The Computer Industry Association, founded on June 23, 1972, is composed of thirty-four companies engaged in diverse aspects of the computer industry in the United States. The annual revenues of its members total approximately $1.3 billions in dollars: the persons employed at their establishments number

approximately 40,000. The attachments to this Motion identifies the members of the Association, and their principal computer and computer-related products.

The Association is one of two principal associations representing manufacturers of computer and computer related products in the United States.[1] The other such association is the Computer and Business Equipment Manufacturers Association (CBEMA). Of CBEMA, eleven companies are generally recognized as being engaged in computer related fields.[2] Of these, seven companies are often characterized in industry studies and trade accounts as "mainframe" or "systems" manufacturers.[3]

The Computer Industry Association has been distiguished by at least three characteristics. First, its

[1] Industry associations not in this category include the Association of Data Processing Service Organizations (involving largely computer service bureaus and soft ware companies); American Federation of Information Processing Societies (involving, largely, individual data processing "professionals"); the Computer Lessors Association (including largely computer leasing firms); and the Computer Dealers Association (involving largely dealers in used computing equipment).

[2] These twelve are: Burroughs Corporation; Control Data Corporation (CDC); Digital Equipment Corporation; Honeywell Information Systems; IBM Corporation; National Cash Register Company (NCR); Singer Company; Sperry Univac; Sanders Associates, Inc.; TRW Data Systems; and Xerox Corporation (XDS).

[3] These are IBM, CDC, Burroughs, Honeywell, Sperry Univac, NCR, and XDS. See finding no. 19 of the trial court below, Appendix A of Petitioners Petition for Writ of Certiorari, p. 12, and Hearings on S. 1167 Before the Subcommittee on Antitrust and Monopoly of the Senate Committee on the Judiciary, 93rd Congress, 2nd Session, pt. 7, at 4968, 4975-76 (1974).

members are principally small companies relative to the companies now dominating computer markets, and are engaged in attempting to develop the entry and growth potentials which might flow from the technology of computers. Second, its members span a number of industry categories—hardware and software; peripherals, terminals, (some) central processing units; manufacturing and leasing operations. Third, its members have been actively and seriously concerned with barriers to entry and growth created by the historically highly concentrated nature of the industry, and institutionalized forms of marketing in it; and they have devoted a substantial portion of their efforts to seeking means of lowering these barriers.

The Association has stated its purpose to be ". . . to bring about the establishment and preservation of a sound and viable U.S. computer industry, based upon the unrestricted exploitation of technology in free and open competition."[4]

The decision of the 10th Circuit in Telex v. IBM is of major concern to members of the Association. First, it appears to hold that legality under the antitrust laws of practices of the firm widely known to be dominant in the computer industry is to be guaged with primary reference to whether other firms may use similar practices, without reference to whether a combination of such practices with a dominant market position would have anticompetitive and exclusionary effect. Second, its definition of relevant markets primarily involved in this case show little connection

[4] "A Time to Act", Computer Industry Association Policy Statement of September 19, 1972.

with the realities of the markets in the computer industry. In this connection, the Circuit Court went well beyond the markets primarily involved in this case in erroneously articulating more generalized market concepts which grossly distort the nature of the computer industry. To the extent the Circuit Court's decision is precedential it would severely complicate the ability of members of the Association to obtain legal protection under the antitrust laws for legitimate enterprise.

The Petitioner to the Court, the Telex Corporation, must necessarily be concerned with obtaining a review with respect to the issues most directly involving it —specifically with respect to its position in the IBM plug compatible peripherals market—and the effects of the Tenth Circuit decision upon its own operations. The petitioner cannot fully or adequately reflect the decision's relevance to and effects upon numerous other companies in similar and differing aspects of the computer industry, though such effects are of major concern to such other companies. Other Amici are in a position more closely corresponding to that of Telex than the positions of other segments of the industry. For example, the possible legal and factual implications of the Circuit Court's treatment of markets broader than the "plug compatible peripherals market" may be of substantially less concern to the petitioner—Telex—than to numerous other entities in the computer industry, and in the Association.

The respondent to the petition, IBM, has previously opposed Amicus participation by the Association in the proceedings below. It has in effect denied that the Association has any valid point of view or reason for existence. IBM has no interest in advancing the

considerations which concern the members of the Association.

The Association believes that the Tenth Circuit Court's decision constitutes a significant discouraging factor with respect to the growth of its members. For as long as this decision is precedent, its members are exposed to the use of dominant market power in numerous exclusionary ways, and any attempt at legal redress they may contemplate is seriously complicated. The Association requests that the Court consider its Amicus brief in support of the issuance of a writ of certiorari.

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APPENDIX A

PEARCE & BRAND
ATTORNEYS AT LAW

CARY JACK PEARCE
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(202) 785-0048

May 22, 1975

Thomas D. Barr, Esq.
Cravath, Swain & Moore
1 Chase Manhatten Plaza
New York, N.Y. 10005

Re: *Telex* v. *IBM*

Dear Mr. Barr:

The Computer Industry Association is informed that Telex Corp. intends to file a petition for certiorari seeking review of the opinion of the Court of Appeals for the Tenth Circuit in the above-entitled matter, entered January 28, 1975. The Association intends to file a brief *amicus curiae* in support of Telex's petition.

Rule 42 of the Rules of the Supreme Court of the United States requires that any person desiring to file a brief *amicus curiae* with respect to a case pending before the Court seek the consent of the parties thereto. Accordingly IBM's consent to the filing of such a brief is hereby requested. The Association will attempt to file concurrently with or in the shortest possible period of time following the filing of Telex's petition and would have no objection to an extension of time for defendant-appellant IBM's response.

Your early response to this request would be appreciated.

Yours sincerely,

/s/ JACK PEARCE
Jack Pearce
General Counsel
Computer Industry Association

APPENDIX B

CRAVATH, SWAINE & MOORE
ONE CHASE MANHATTAN PLAZA
NEW YORK, N.Y. 10005

May 28, 1975

Telex v. *IBM*

Dear Mr. Pearce:

I have your request for IBM's consent for filing a brief *amicus curiae* on behalf of the Computer Industry Association.

For all of the reasons which I have previously indicated on the record of this case and on the record of *United States* v. *IBM*, IBM does not consent to your request.

Very truly yours,

/s/ THOMAS D. BARR
Thomas D. Barr

Jack Pearce, Esq.,
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1000 Connecticut Ave., N.W.,
Washington, D. C. 20036

4497

Copy to Floyd L. Walker, Esq.,
Walker, Jackman & Associates, Inc.,
1919 Fourth National Bank Building,
Tulsa, Oklahoma 74110

APPENDIX C

Computer Industry Association
Membership Roster as of May 30, 1975

Co. & Headquarters Loc.	Principal Products	Approx. Annual Rev. in Millions
Amdahl Corporation Sunnyvale, CA	large scale IBM software compatible C.P.U.'s	*
Applied Data Research Princeton, NJ	software	10
Applied Magnetics Corp. Goleta, CA	word processing, keyboard terminals, magnetic heads, core and semiconductor memories	65
California Computer Prod. Inc. Anaheim, CA	graphic systems, disk drives, tape drives, mass storage, printers, (computer output on microfilm (COM))	130
Centronics Data Computer Corp. Hudson, NH	printers, keyboard terminals	31
Cincom Systems, Inc. Cincinnati, OH	software	*
Computer Optics, Inc. Bethel, CT	keyboard terminals, CRT	*
Courier Terminal Systems, Inc. Phoenix, AZ	keyboard terminals, printers, cathode ray tube displays (CRTs)	*
Datapoint Corporation San Antonio, TX	keyboard terminals, CRTs, printers, tape drives, disk drives	40
Data Printer Corporation Cambridge, MA	printers, supplies and accessories	*

Co. & Headquarters Loc.	Principal Products	Approx. Annual Rev. in Millions
Dataproducts Corporation Woodland Hills, CA	printers, core memories, printer ribbons, COM punched card equipment	75
Delta Data Systems Corp. Cornwell Heights, PA	keyboard terminals, CRTs & printers	*
Digital Scientific Corporation San Diego, CA	small computer systems	*
Electronic Memories & Magnetics Los Angeles, CA	disk packs, disk drives, core memory systems, semi-conductor memory systems	60
Incoterm Corporation Natick, MA	intelligent terminals, keyboards, CRTs	21
Inforex, Inc. Burlington, MA	key to disk data entry systems	60
Informatics, Inc. Woodland Hills, CA	applications software, utility software, consulting services	25
Itel Corporation San Francisco, CA	third party systems leasing, utility software, service bureau	95
Levin Computer Co. New York, New York	third party system leasing	•
Lexitron Corporation Chatsworth, CA	word processors	12
Logicon Torrance, CA	disk drives, core memory disk and tape systems, software	15

Co. & Headquarters Loc.	Principal Products	Approx. Annual Rev. in Millions
Memorex Corporation Santa Clara, CA	tapes, tape drives, disks, disk drives, controllers, leasing, media	225
Microdata Corporation Irvine, CA	mini computer systems	20
MRI Systems Corporation Austin, TX	utility software systems	*
Odec Computer Systems, Inc. Warwick, RI	line printers	*
Pertec Corporation El Segundo, CA	tape drives, disk drives, floppy disk, key to tape, key to disk, keyboard terminals	35
Prime Computer, Inc. Framingham, MA	mini computer systems	7
Sanders Associates, Inc. Nashua, NH	intelligent terminals, graphic display systems, CRT terminals, remote batch terminals	25
Storage Technology Corp. Louisville, CO	tape drives and controllers, disk drives, semi-conductor memory	75
Telex Corporation Tulsa, OK	tape drives, disk drives, printers, controllers	100
Transac, Dic. of C.I.T. Alcatel/CGE France	intelligent terminals	•

Co. & Headquarters Loc.	Principal Products	Approx. Annual Rev. in Millions
Transamerica Computer Corporation, Inc. San Francisco, CA	third party system leasing	35
United Computing Systems Kansas City, MO	timesharing network, service bureau	25
	TOTAL	$1,161,000,000
	PLUS *	$ 155,000,000
	Total combined revenues of all member companies	$1,316,000,000

* Private companies and divisions that do not report separately.

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No.

THE TELEX CORPORATION and TELEX COMPUTER PRODUCTS, INC.

Petitioners,

vs.

INTERNATIONAL BUSINESS MACHINES CORPORATION,

Respondent.

BRIEF IN SUPPORT OF PETITION FOR CERTIORARI

The Computer Industry Association hereby submits its *Amicus* statement in support of the Petition for Certiorari by the Court, with respect to the decision of the Court of Appeals in *Telex* v. *IBM*.

I. NATURE OF THE COMPUTER INDUSTRY ASSOCIATION'S INTEREST.

The Computer Industry Association was founded in Los Angeles, California on June 23, 1972 with seven companies. It is now a grouping of thirty-four companies engaged in several major aspects of the computer industry, including "peripheral" equipment (memory devices, input-output devices, and the like);

terminals; software; service bureau operation; minicomputers; computer leasing; and others. The Association represents most or all of the significant portions of the industry, with the exception that at this time it does not have representation from among "mainframe systems" manufacturers such as IBM, Control Data, and Honeywell. (A list of the Association's members is included as an appendix to the Association's Motion for Leave to File as Amicus Curiae.) The Association's stated purpose has been ". . . to bring about the establishment and preservation of a sound and viable U.S. computer industry, based upon the unrestricted exploitation of technology and free and open competition."[1]

The computer industry has grown and differentiated rapidly in the period 1955 to 1975.[2] Development and commercial application of stored program digital computers formed the foundation on which growth proceeded. From this foundation has proceeded an expanding front of practical uses for "electronic data

[1] "A Time to Act," Computer Industry Association Policy Statement of September 19, 1972.

[2] The Findings of the District Court illustrate the point. Finding 12 of the District Court, in Petitioner's Appendix (hereinafter cited as App.), records a growth from 52 million in sales in 1952 to 10.2 billion in 1970. Recent trade publication reports put all business spending on computer goods and services, counting both purchases and computer user in-house spending, at over 25 billion. According to a recent scholarly industry analysis, the value of the stock of the largest company in the industry, IBM, equaled the value of the three largest corporations in the country; AT&T, General Motors, and Exxon. Brock, "The U.S. Computer Industry: A Study in Market Power" (Ballinger, Cambridge, 1975) (hereinafter cited as Brock) at 5.

processing," an expanding set of computing, or data processing, capacities, and a proliferation of distinctions and elements in the systems used to meet market potentials. Sizable computer "systems" of today are often highly elaborated installations. They integrate numerous differentiated elements: "central processing units;" "peripheral equipment" (including "memories," "tape drives," "disc drives," "printers," "data entry devices"); "software" (including operating systems," "application programs," and the like); "terminals;" and others.

Data processing development has centered on manipulation of large masses of data for commercial organizations, including personnel data, inventory data, and the like; but also has had an important scientific component from its inception, and has reached into control of industrial production processes and numerous other areas.

While the electronic computing art has developed rapidly, its center of gravity quickly became data processing for commercial establishments. The industry quickly came to be dominated in this central locus by the company which dominated electromechanical data processing before the advent of the computer—International Business Machines.[3]

[3] IBM had dominated the market for punched card tabulating machines and cards for several decades prior to development of computers. It had twice been sued by the Department of Justice; first in 1932, and, for monopolization, in 1952. The first suit ended in a judgment for the government. *United States* v. *International Business Machines Corp.*, 13 F. Supp. 11 (S.D.N.Y., 1935), aff'd 298 U.S. 124 (1936). The second suit ended in a consent decree. IBM's market position in the 1930-1950 period in electro-mechanical data processing was directly and rapidly translated into a dominant market position in computers.

Respected industry research organizations, academic studies, and financial organization analyses too numerous to mention have consistently depicted a highly concentrated computer industry structure, intimately known to participants in the industry. These studies show one firm, IBM, dominating the computer industry, with market shares of installed computer systems in the 65-75% range.[4] The next largest systems manufacturer has less than 10% of the integrated "systems" installations.[5] Given merchandising practices oriented primarily to vendor leases rather than sales, substantial research and development costs in some market sectors, and other factors, a recent academic work indicated that entry into "systems" manufacture is effectively blockaded, and that the major route for the development of new competition with the entrenched dominant systems companies lay in combinations of specialty firms.[6]

IBM's market position is thoroughly appreciated in the trade. Would-be or actual market entrants in most elements of business data processing recognize this situation. If "peripheral" devices are the would-be entrant's products, they usually must displace, principally, IBM peripheral devices, and attach, principally, to IBM central processing units. Analogous statements can be made for major software products,

[4] See testimony and appendices of International Data Corporation in Hearings on S. 1167 Before the Subcommittee on Antitrust and Monopoly of the Senate Committee on the Judiciary, 93rd Congress, 2nd Session, pt. 7, at 4933-5022, particularly at 4956, 4962, 4968, 5022 (hereinafter "Hearings"). Also Brock, *supra,* note 2, at 21-24.

[5] Hearings, *id.*, at 4956.

[6] Brock, *supra* note 2, at 65-66, more generally at 27-67.

data entry and data output products, and numerous other products and services.

Six of the members of the Association have pending antitrust actions against IBM. All of the Association's members, whether they have pending antitrust actions at this time or not, and whether they now expect to have occasion to institute legal actions or not, have a vital interest in the development of more competitive computer industry structures. They are directly and vitally affected by questions of how markets and sub-markets in the computer industry are to be defined, the rules of conduct applicable to a firm occupying a central, dominant position in a developing industry, faced with potential and attempted entry, and the forms of judicial relief available when applicable antitrust law and precedent are violated.

II. REASONS FOR GRANTING THE WRIT OF CERTIORARI

The Tenth Circuit's decision in the instant case contains major errors of law and fact. Its analysis of relevant markets fails to bear any close or useful relationship to the realities of current computer markets. While some of its errors of analysis may not be critical to a determination of Telex's claim against IBM, they are errors of a sort likely to make smaller companies in numerous sectors of the computer industry subject to a variety of exclusionary and predatory tactics. As long as the decision stands as a leading precedent on market definition in the computer industry and the nature of market conduct permissible in it, it will have a chilling effect on the market opportunities of numerous firms in the industry, tend to legitimate monopolistic conduct, and tend to maintain the present highly concentrated condition of the computer industry.

Major errors of the Tenth Circuit opinion which directly affect members can be illustrated by reference to the District Court decision, the realities of the computer market place as perceived by participants, and relevant antitrust law.

A. Synopsis of Major Findings and Holdings of the District and Circuit Courts.

1. *The District Court Decision*

The District Court sketched a good deal of the foundation for and development of the computer industry. In its analysis, the District Court delineated major functions of modern computer systems (processing, storage, input, output, and control: F. 25-27, App. 15-16) and major current equipment subsystems in computer systems (e.g. input/output products such as teletype machines, printers, cathode ray tube displays; central processing units; and storage units such as tape drives, disc drives, or magnetic memories: F. 28-32, App. 16-18). Of particular importance, the court adumbrated the concept of a computer system composed of numerous elements organized by a generalized architecture, which architecture can be adapted to specific user needs (F. 40-47, App. 24-29).

The District Court's decision as to IBM monopolization and attempts to monopolize centered upon activities in a sector of the computer industry having to do with "peripheral" equipment—equipment attached to central processing units. In particular, the court identified internal IBM documentation showing over $1.1 billion in IBM sales of various types of peripheral equipment, and market shares ranging from 80% to 99% as to particular types of equipment "plug compatible" with its own central processing units—versus $100 million in sales for rivals offering such "plug compatible" equipment (F. 66, 67, App. 41-44). The composite picture outlined led the District Court to the judgment that IBM had monopoly market power as to a commercially identified, sizeable plug compatible peripheral equipment market (F. 70, App. 46), and in submarkets within that market.

In this market, the District Court found exclusionary *intent and effect* as to itemized IBM marketing strategies.

As a part of the general analysis of the computer industry, the District Court also made general findings on the over all "important position" and "dominance" of IBM, as indicated in two distinguishable markets which it identified, from evidentiary submissions in this case, as a "systems and peripherals" market, and the "EDP market:" while holding that the evidence was insufficient to make findings as to IBM monopolization of these markets.[7]

---

[7] The District Court held:

> While it is believed that the position of IBM in the general EDP market, particularly with reference to general systems, is relevant, the evidence is insufficient for a finding, and it is unnecessary in the Court's view to find in order to properly resolve this case, that IBM during the relevant period monopolized or attempted to monopolize the general systems market. (F. 57, App. 36.)

The District Court went on to detail evidence introduced by the parties to the effect that IBM's share of the "EDP market" as defined by various indicators ranged from 35.19% to 44.9% (F. 61, App. 39); while IBM's share of the "domestic market for systems and peripherals," a market stated and measured in IBM's own internal documentation, decreased from 75.9% in 1964 to 73.3% in 1968. The Court differentiated between IBM's share of CPU's (68.6% in 1964 and 64.4% in 1968) and the "systems and periph-

2. *The Circuit Court Decision*

The Circuit Court affirmatively held that ". . .IBM's share of the data processing industry as a whole is insufficient to justify any inference or conclusions of market power in IBM. . ." (App. 230), citing only a portion of District Court's finding number 61 (App. 39). This converted a District Court finding that the evidence was insufficient to determine IBM's position in the "EDP market" into a comprehensive and determinative finding that IBM had no market power in any relevant portion of the computer industry outside of the plug compatible peripherals area. The Circuit opinion completely omitted mention of the documented market shares in a narrower "systems and peripherals" market—market shares of a size usually giving rise to a presumption of market power or monopoly power.

The Circuit Court then proceeded to hold that non-IBM peripherals were, in effect, easily interchangeable with peripheral equipment plug compatible with IBM (App. 237). The Circuit Court's judgment that all peripheral equipment is reasonably interchangeable with IBM equipment appears to rest principally upon evidence to the effect that the "engineering costs" of designing or modifying a piece of peripheral equipment to fit a given manufacturer's system, or CPU, were not great (App. 232-233).

From this angle of approach, the Circuit Court proceeded to consider IBM's complained-of practices vis-

erals" market, (F. 58, App. 37). The court did not attempt to come to grips with these markets in detail, except to observe that the plaintiff had not, in the District Court's opinion, discharged its burden of proof to show monopolization in the systems and peripherals market (F. 61, App. 39).

a-vis Telex. The Circuit Court begins its analysis of IBM's practices by appearing to assume, for the sake of analysis, that IBM had "monopoly power," stating that the District Court so found (App. 237). However, the Circuit Court's opinion proceeds to characterize the District Court's opinion as *not* holding that IBM's acts "were derived from power in the market. . ." and "were not acts which could only have been performed by one with the requisite power" (App. 250) and that the instant case did not involve a use of or abuse of market "power" (App. 251-252). The Circuit Court's judgment that the IBM actions were lawful seems to be based upon the view that its actions were ". . . ordinary marketing methods already used by others in the market. . ." (App. 253); and that, even if the company had market or monopoly power, it could use such methods.

B. Major Errors of the Tenth Circuit Decision.

From this background, prominent legal and factual errors of consequence to numerous participants in the computer industry (not by any means all of the consequential legal or factual errors) can be briefly recapitulated.

1. *The Treatment of the Systems and Peripherals Market Data and EDP Market Data by the Circuit Court*

The District Court and Circuit Court decisions should turn on the appropriate treatment of "plug compatible" peripheral equipment markets. However, the Circuit Court went beyond this market area in two important particulars. It made an affirmative finding that IBM has no market power in something defined as an "EDP industry"—when the District Court had

held the evidence was insufficient for a finding on this point. Second, while highlighting the EDP market, it ignored District Court findings based on IBM internal documentation showing 70-75% IBM market shares in a "systems and peripherals" market—a market obviously much more relevant to the focus of the case: i.e., peripheral equipment compatible with IBM central processing units.

The Circuit Court's error as to the "EDP Industry" can be seen as either a misreading of the District Court's findings, or a finding *sua sponte* of the Circuit Court in disregard of substantial portions of the record and the findings of the District Court.

The "EDP" market definition rests upon Bureau of the Census statistics and a census prepared for this case at IBM's initiative, through Rule 31 depositions. The private census lists American Telephone and Telegraph Company as the second largest "EDP" firm. AT&T has never, to the Association's knowledge, sold a computer or computer system in commercial markets (Western Electric supplies equipment to Bell subsidiaries. These are not open market transactions.) The company is under legal inhibitions in offering services other than common carrier communications, embodied in both a consent decree and a Federal Communications Commission order.[8] Such a mar-

[8] The Federal Communications Commission order required that AT&T refrain from engaging in electronic data processing for hire. Docket No. 16979, Regulatory and Policy Problems presented by the Interdependence of Communications Services and Facilities. Final Decision and Order, 28 F.C.C.2d 267 (1971). The consent decree was entered in *United States* v. *Western Elec. Co.* (Civil Action No. 17-49: D.C. N.J. (1949)). The decree specifies, with few exceptions, that the Bell System cease doing any business other than common carrier communications services of the kind regulated by state and federal governments, and providing equipment of the kinds used for such services.

ket definition fails by a very wide margin to delineate the "area of effective competition"[9] in the computer industry, discover "patterns of trade actually followed in practice,"[10] or "correspond to commercial realities."[11] Insofar as the Circuit Court opinion might rest upon this holding it is grossly in error.

If any market wider than plug compatible peripherals equipment markets were to be considered relevant to this case, the "systems and peripherals" markets discussed by the District Court—and ignored by the Circuit Court—would appear obviously to be that market.

In the "systems and peripherals" market, IBM internal documentation showed market shares of 70-75%. The major determinations of clear-cut monopoly positions have involved market shares in the 80-90% range.[12] Dictum by Learned Hand suggested, thirty years ago, that a 64% market share might not be enough to find a monopoly situation—en route to finding that Alcoa's 90% share of the virgin aluminum market did amount to a monopoly.[13] A market share in

[9] *Standard Oil Co.* v. *United States*, 337 U.S. 293 (1949) at 299, n. 5.

[10] *United States* v. *United Shoe Machinery Corp.* 110 F.Supp. 295 (D.Mass. 1953), aff'd per curiam, 347 U.S. 521 (1954) at 110 F. Supp. 303.

[11] *Brown Shoe Co.* v. *United States*, 370 U.S. 294 (1962) at 336.

[12] *United States* v. *Aluminum Co. of America*, 148 F.2d 416, 424 (2nd Cir. 1945); *Standard Oil Co.* v. *United States*, 221 U.S. 1, 61 (1911); *International Boxing Club, Inc.* v. *United States*, 358 U.S. 242 (1959).

[13] *United States* v. *Aluminum Co. of America, id.* See also *United States* v. *Grinnell Corp.*, 384 U.S. 563 (1966).

the 70% range is at the least verging upon the market shares involved in classic monopolization cases. Most modern economic analyses treat a market share of less than 70% in an established industry as a presumptive, if not virtually conclusive, indication of major market power.[14]

Technological progress and the entry of new firms in a developing industry are relevant to the question of whether monopoly conditions exist in any or many parts of it. These are not dispositive. A persistently high market share, very high profits, and a set of long-range marketing strategies designed to impede entry and market penetration in an area dominated by a major firm, can all be persuasive indicators of market power, or monopoly power. These are characteristics of IBM's position in the computer industry, as experienced by participants in that industry, attested to by a recent scholarly examination, and alleged in several pending antitrust actions, including that of the Government.

2. *The Treatment of the "Plug Compatible Peripherals" Market and Submarkets*

The Circuit Court erred in holding that there is no distinguishable, commercially significant submarket identifiable as the "plug compatible peripherals" market with respect to IBM equipment.

[14] e.g. Mueller, "The New Antitrust: A Structural Approach," *Antitrust Law and Economics Review*, (1967) at 116-17; Kaysen and Turner, *Antitrust Policy*, (Harvard, Cambridge, 1965) at 26-28; Scherer, *Industrial Market Structure and Economic Performance*, (Rand McNally, Chicago, 1970) at 50-61; Weiss, "The Concentration-Profits Relationship and Antitrust," in Goldschmid, *Industrial Concentration: The New Learning*, (Little Brown, Boston, 1974) at 184, discussing various measures of concentration.

The Circuit Court's opinion approaches the question of "reasonable interchangeability" almost entirely from the supplier side of the market. The question is most directly approached from the buyer side of the market. As the District Court found, the computer users to which IBM and the (few) other "mainframe" companies sell equipment typically buy computer systems—integrated assemblages of components. These systems have been oriented around central processing units (CPU's) in the period under discussion. As the District Court observed, such systems have "software" elements, terminal elements, and numerous other elements. Typically, a computer user makes extensive financial and operational commitments to the system it employs—its data are organized for that system; its personnel are trained for that system; it spends substantial sums using the system; and its business operation is closely linked to the operation of the computer system. If any company wishes to sell "peripheral" equipment to a computer user, the seller must either replace the system or sell something compatible with it. If the buyer wishes to buy "peripheral" equipment, he must either buy equipment which is compatible with the system he is using, or discard his entire computer system. The latter is a purchasing and operating decision of far greater consequence than merely the choice of a new or additional memory device for the system.[15]

[15] These facts reveal an inappropriate use of controlling precedent by the Circuit Court. The Circuit Court cites the language in the *Grinnell* case to the effect that ". . . substitute products are to be included in the definition of relevant market since customers may turn to them if there is the slightest increase in price of and identifiable 'main product.'" The record shows that when IBM cut its

The entire meaning of the "plug compatible peripherals" designation for the Telex type of company, extensively used in IBM internal documentation and in the trade press for many years, is a company, or group of companies, which sells equipment compatible with existing computer installations.

As the District Court found, IBM is the dominant vendor of computers used in business computer equipment installations. IBM's merchandising is geared primarily to leasing rather than selling equipment: it legally owns a large proportion of the installed IBM computer systems. Its internal documentation introduced in this case and independently published market analyses [16] speak in terms of its "installed base"—that is, the IBM equipment installed at computer user sites.

Peripheral equipment manufacturers such as Telex have thus aimed at a very definite and specific market —IBM "plug compatible" (just plug it in—it will run) peripheral equipment.

Such a market is directly comparable with markets recognized in *Calnetics Corp.* v. *Volkswagen of America, Inc.*, 348 F. Supp. 606 (C.D.Cal. 1972), (air conditioners compatible with Volkswagen automobiles generally); and *Power Replacement Corp.* v. *Air Pre-*

price on Telex-competitive peripherals it raised its price on central processing units (F 95, 96, 97, App. 61, 62).

Second, a computer user could not shift to a peripheral product incompatible with its computer system at the slightest increase in price for peripheral products compatible with its computer system. The computer user can only buy peripheral products compatible with its system, or replace the system.

[16] Hearings, *supra* note 4, at 4968.

heater Company, Inc., 356 F. Supp. 872 (E.D.Pa., 1973) (replacement parts made for air preheater made by defendant held to constitute a separate and distinct submarket of replacement parts, generally). The market is many times the size of these submarkets recognized in the cited cases. As the District Court held, it accounted for over $1 billion annually at the time of trial (F. 58, App. 37.).

The Circuit Court's opinion is far from adequate even if only the supply side of the market is considered. The costs of "engineering" an interface can be small compared to the costs of marketing and servicing the equipment.[17] "Peripheral" equipment companies have often aimed at the IBM plug compatible market precisely because it offers the largest single sales potential in the computer area; and thus offers an avenue for entry and growth in the computer business by a

[17] Indeed, the Circuit Court's entire concept of an "interface" seems out of touch with the actualities of computers. The Circuit describes an "interface" as ". . . the attachment which allows the use of peripherals manufactured by one system to be used on another central processing unit." (App. 228) An "interface" is more properly described as a defined set of physical and electrical characteristics which permit one element in a computer system to operate in conjunction with one or more of a congeries of other elements in a computer installation. Various types of equipment manufactured by a single manufacturer must "interface" with each other. As a practical matter, the ability to interface to a user's satisfaction requires not only physical compatibility and compatibility in the format of electrical signals interchanged between equipments, it also requires that the user and the vendor of the compatible equipment be able to diagnose where in the interconnected set of equipment breakdowns occur, and to service the interconnected unit knowledgeably. The vendor of "plug compatible" equipment must go to considerable expense in conforming a given product to fit into a given type of system, identifying cus-

firm not already established as a "systems" manufacturer.

Finally, the Circuit Court's opinion is grossly deficient in failing to recognize the extensive differentiation in the "peripherals" area. A printer is not a data entry device; a disc drive is quite different from a tape drive; and a terminal with a cathode ray tube (CRT) is not a tape library. The market positions of different producers vary as to such products. The District Court carefully specified which such products were involved in the IBM-Telex situation (F. 26, App. 15).

The Circuit Court's failure to define such commercially significant sub-markets is symptomatic of the failure of its over-all analysis. The Circuit Court's analysis of computer peripherals markets, like its analysis of the larger market of which peripherals equipment is a part, fails to approach an adequate delineation of the "commercial realities" of the computer industry.

3. *IBM's Practices.*

The Circuit Court's holdings as to IBM practices proceed from premises unsound in several respects.

The antitrust laws recognize in several ways that practices which would be permissible, and indeed normal, absent market power, or anti-competitive intent, can have anticompetitive effect and be proscribed if used in conjunction with market power. Thus, tying devices are illegal if the vendor has enough power in the tying product to restrain trade in the sale of the

tomer installations, gearing his sales staff to placing the product in the defined type of installation, and servicing the equipment as it functions in the defined type of installation.

tied product.[18] Practices which would be lawful are unlawful if included in an unlawful attempt to monopolize.[19] Long term contracts may be lawful if the market position of the contracting party is minimal;[20] unlawful if the market position is large enough to give the contracts substantial foreclosure effects.[21] Refusals to deal are a well established right of most business entities;[22] but are unlawful if used in aid of maintaining a dominant or monopoly situation.[23] The practice of leasing equipment rather than selling it has been found lawful where the supplier had a small market share, but unlawful if a part of a marketing pattern designed to exclude or limit new entry where the supplier was dominant in the market.[24]

A specific intent to exclude rivals when linked with conduct otherwise lawful, can make that conduct unlawful, as a part of an attempt to monopolize.[25]

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[18] *Northern Pacific Railway Company* v. *United States,* 356 U.S. 1 (1958); *Fortner Enterprises, Inc.* v. *United States Steel Corp.,* 394 U.S. 495 (1969).

[19] *United States* v. *United Shoe Machinery Co., supra* note 10.

[20] *Tampa Electric Co.* v. *Nashville Coal Co.,* 365 U.S. 320 (1961).

[21] *Standard Fashion Company* v. *Magrane-Houston Company,* 258 U.S. 346 (1922) *Standard Oil Company of California* v. *United States, supra* note 9.

[22] *United States* v. *Colgate & Co.,* 250 U.S. 300 (1919).

[23] *United States* v. *Otter Tail Power Company,* 410 U.S. 366 (1973); *Eastman Kodak Co.* v. *Southern Photo Materials Co.,* 273 U.S. 359 (1927).

[24] *United Shoe Machinery Co., supra* note 10, pointed out that the practice of leasing equipment rather than selling was universal among shoe machinery manufacturers; but also constituted a device for United Shoe market control; see also *Standard Oil Co.* v. *United States, supra* note 9.

[25] *California Motor Transport Co.* v. *Trucking Unlimited,* 404 U.S. 508 (1972).

When a company has market power in the range known as monopoly power, and has maintained that position over time, the test of conduct comes to be whether ". . . the barriers are *exclusively* the result of superior skill, superior products, natural advantages, technological or economic efficiency, scientific research, low margins of profit maintained permanently and without discrimination, legal licenses, or the like".[26] Arrangements which would otherwise be legal but which, as maintained and used, have an exclusionary effect, are unlawful.

The practices of which Telex complains were employed by a firm with 80-99% of the specified types of the "peripheral" equipment connected with its installations as of the time of this suit (F 67, 68, App. 42-45). According to IBM's internal documents and the District Court's findings (F 58, App. 37), the IBM company had over 70% of a computer "systems and peripheral" market in the late 1960's.

This sort of market position is instinct with market power. That conduct by a market leader could have anticompetitive effect and anticompetitive intent when similar practices used by smaller firms might have no such effect (or might even be compelled in order to fit into a milieu dominated by the market leader) should be obvious.

The District Court examined the practices of IBM carefully. Its findings as to intent and effect are clear. The Circuit Court discarded these findings, in apparent disregard for the "clearly erroneous" rule.

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[26] *United Shoe Machinery Co., supra* note 10; *Standard Oil Co.* v. *United States, supra* note 9.

The Circuit Court's test for the legality of IBM's practices is, thus, fundamentally unsound. The governing case law is that if IBM had a monopoly position, or even substantial market power, it must avoid the use of practices not essential to commercial operation and which, given that position, would have exclusionary effects.[27] Rather than use this test, the Circuit Court held that IBM could use the complained-of practices if other firms, with different market positions, used similar (not even identical) practices.

The Circuit Court further erred in asserting that the District Court did not hold that IBM's practices constituted an abuse of use of market power. The District Court's findings as to IBM's use and abuse of market power are unambiguous, and pointed. (e.g. C. 26, F 88, App. 56, 150-52.)

Finally, the Circuit Court brushed aside careful reports of specific intent to exclude rivals; an element of critical importance in determining the permissibility of conduct.

C. Major Adverse Consequences of the Circuit Court's Decision.

Several companies have filed antitrust actions against IBM. The Department of Justice is prosecuting a major monopolization action against IBM. Numerous companies in numerous markets must encounter the conduct authorized by the Court decisions in the major cases against IBM; and should they at any future point feel a need for legal redress, deal with the governing precedents.

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[27] *United States* v. *Grinnell Corp., supra* note 13 at 570-71; *United States* v. *Aluminum Co. of America, supra* note 12, *United Shoe Machinery, supra* note 10.

If the Tenth Circuit decision stands, the leading precedent will hold that a market definition of extreme breadth, in a rapidly growing, differentiated, complex industry, will be looked to as the presumptive definition of whether a supplier has market power within the cognizance of the Courts. The approach facing companies would be as if, in the suit against Alcoa, major manufacturers of aluminum bauxite smelting equipment had been included in the relevant market; in the suit against United Shoe Machinery, shoe stores and all other elements of the community dealing in footwear were determined to constitute the relevant market; or, in a future suit against AT&T, the market were defined to include all electronic communications —radio, TV, military, private, ad infinitum.

If this precedent were followed, submarkets within the computer industry—some of which account for billions of dollars annually—would be blurred by use of tests which constitute only a small part of relevant market definition—e.g. whether engineers can design a product compatible with another product. Differences between teletypes and intelligent terminals, memory devices and printers, devices requiring little software support and devices requiring much software support; differences between market positions of various entities in such different markets; and the distinct characteristics of marketing and use of computer products which serve to define the "patterns of trade actually followed in practice"—all would presumptively be relegated to a hazy, inaccessible background.

If the Tenth Circuit precedent were followed, the dominant firm in the industry, IBM, will presumptively be able to use any marketing tactic used by any company in the field without reference to whether differentials in market power would give those tactics exclusionary and anticompetitive effect in the case of IBM when they would not have such an effect if used by firms with different market positions.

This situation would have a particularly stifling effect in a field generally known to include one giant, IBM, and a few relative "dwarfs" (such as Control Data, Honeywell, Univac, Burroughs and NCR) engaged in manufacturing and marketing collections of products called "systems"; and numerous entities seeking to create substantial value added and to expand their supply capacity by establishing market niches in various subsectors of the industry. If the dominant firm, IBM—or indeed, the "dwarfs"—can with impunity use tactics designed selectively to blockade entry or expansion in significant market subsectors where serious competition threatens to emerge, the normal market forces tending toward development of a more competitive, open, wider computer market will be impeded, and the cutting edge of competition blunted. The net result would be that the dominant firm would continue to appropriate most of the growth—more of the growth than would be the case were it denied use of exclusionary tactics. A better prescription for the continuance of monopoly could hardly be devised.

As a legal matter, the scope of the antitrust laws would be drastically curtailed if computer markets were habitually defined as broadly as the "EDP industry" definition—including AT&T, for example—and then the practices of any leading firm were sanctioned if any other firm used similar practices, without reference to the combined effect of practice and market position. This is a prescription for evisceration

of the antitrust laws. Were this pattern of analysis used habitually by courts in antitrust cases, the country would suffer a drastic abridgment of its antitrust policy.

As a practical matter, if the investment and entrepreneurial community understands the Circuit Court's approach and decision to be the law of the land, at least in the computer industry, a chilling effect seems inevitable as to new or expanded enterprise in those computer markets now dominated by IBM.[28]

Legal actions now under way can in some measure be prejudiced by the Tenth Circuit decision. The entire industry will feel the effects of this decision until it is righted. In a complex, changing industry a de facto abrogation of antitrust law and policy—even if, hopefully, only for a few years—can only work against the development of a more competitive industry structure, and can only diminish the opportunities for numerous smaller firms to contribute to the development of the computing art in the United States and in the world.

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[28] Something of the nature and likelihood of this chilling effect is suggested by, among other things, an article in the *Wall Street Journal* dated Monday, Jan. 27, 1975, concerning the impact of the Circuit Court's decision, immediately following its release. The article included the following:

> "One New York securities analyst who has been critical of IBM practices, Eugene Collins, of Evans & Co., described the new ruling as a "complete surprise" and "a substantial setback for the peripherals companies". Besides hurting their legal cases, he said, "if it's upheld, essentially these companies aren't viable in the industry. Some of them will survive, but they will never become major factors in the industry."

CONCLUSION

The Circuit Court has made numerous, critical errors of law and fact. It has on several instances failed to observe the deference given trial court findings unless they are "clearly erroneous". It has used market definitions of obviously inappropriate breadth and obviously inadequate discrimination. It has misunderstood and misapplied the tests for market conduct by companies with major market power, including the tests for conduct involved in monopolizing and attempts to monopolize.

We respectfully submit that the Court should grant *certiorari*. Upon review of the matter, the Court may, and we believe should, determine that the District Court's findings concerning the IBM plug compatible peripherals market and the exclusionary intent and effect of IBM's practices should be affirmed. The Court's decision could make clear that the Circuit Court's indiscriminate approach to market definition is not consistent with precedent or the requirements of consequential antitrust litigation. If the Court were to find any consequential ambiguity or deficiency in market definition at the District Court level—and we do not suggest that the District Court decision is deficient in any essential respect—it would have the power to remand the case to the District Court for further clarification of the findings concerning general systems market and the "peripherals" submarkets, and the relationships between these markets. In any event, the Tenth Circuit Court decision, a major precedent with major industry consequences, and, we believe,

egregious errors of law and fact, should be given careful review and a much more thorough disposition.

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